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17 June 1983

**WORLDWIDE REPORT
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AUSTRALIA

EXPENSIVE HEPATITIS B VACCINE READY FOR NATIONAL USE

Melbourne THE AGE in English 25 Mar 83 p 4

[Article by Mark Methereir]

[Text]

A new vaccine against hepatitis B to be introduced in Australia next month will cost patients more than \$150 for full inoculation.

The vaccine, which has been highly effective in the United States, is regarded as one of the most important recent developments in the fight against infectious disease.

But people at high risk of hepatitis B, including homosexuals, and women who are chronic carriers of the disease and can pass it on to their babies, will have to pay \$150 to \$200 for immunising themselves or their children.

In Western countries hepatitis B is one of the few infectious diseases to have increased as a problem in recent years partly because of the increase in casual sex and homosexuality and the use by drug users of dirty hypodermic needles.

Doctors, nurses and dentists who are regularly exposed to human blood have faced an increased risk of contracting hepatitis. Government officials said yesterday that it was likely that hospital staff at high risk would be vaccinated free.

The National Health and Medical Research Council has yet to settle the priorities for hepatitis vaccination that it would recommend to State health authorities.

An international authority on hepatitis B, Professor Palmer Beasley, said the vaccine could be described rightly as the first vaccine against cancer. For those who became chronic carriers of hepatitis, particularly in infancy, 40 to 50 per cent developed cirrhosis and cancer of the liver in later life, he said.

Professor Beasley, a professor of epidemiology and director of Washington University's medical research unit in Taiwan, yesterday addressed the annual scientific meeting of the Australian Society for Infectious Diseases.

He has conducted the world's biggest survey of hepatitis sufferers, in Taiwan, where he found that 15 per cent of 22,000 surveyed had the chronic carrier form of hepatitis B.

In many parts of Asia and Africa, a vicious cycle occurred where mothers passed the chronic disease to their babies, without any noticeable results until later life, Professor Beasley said.

Most of the hepatitis B cases in Australia are of the acute type where the sufferers are seriously but temporarily disabled normally for about six weeks.

Professor Beasley said that the price of the vaccine was likely to drop sharply in the foreseeable future, but even at its present price was cheap when the cost-savings of preventing hepatitis were considered.

CSO: 5400/7570

VICTORIA WEIGHS COMPULSORY IMMUNIZATION FOR CHILDREN

Melbourne THE AGE in English 14 Apr 83 p 10

[Article by Mark Metherell]

[Text]

The State Minister for Health, Mr Roper, has begun preliminary investigations into compulsory immunisation of school-age children against infectious disease.

Mr Roper said last night he had asked the Health Commission to prepare a report on the experience in several parts of North America where children had to be fully immunised before they could start school.

But Mr Roper said that the Government had no positive plans at this stage to introduce a compulsory scheme.

Several child health specialists at a seminar at the Royal Children's Hospital yesterday supported compulsory immunisation.

The seminar on immunisation, attended by doctors and scientists from the Health Commission, Fairfield Hospital, Commonwealth Serum Laboratories, medical schools and the Australian College of Paediatrics, was arranged because of doctors' increasing concern at the apparent decline in the rate of immunisation.

The director of ambulatory paediatrics at the Children's Hospital, Dr Frank Oberklaid, said that latest available figures showed that about 86 per cent of Victorian infants had received their first round of immunisation for diphtheria, tetanus, whooping cough and polio.

But it was clear that the rate of immunisation among migrant and disadvantaged groups was much lower, possibly less than 50 per cent, Dr Oberklaid said.

"Some parents have the misconception that immunisation is in some way harmful to their children. In fact it is one of the most beneficial preventive health measures available. We no longer see epidemics of whooping cough and diphtheria."

Dr Oberklaid said that this might partly explain the complacency in a generation which had never seen a full-scale epidemic.

He said that doctors realised there might be some community resistance to compulsory immunisation. But such a step should be compared to the introduction of seat belts and breath tests which also initially drew protests.

Mr Roper said that he was concerned about reports that immunisation rates were not high enough to achieve herd immunity — the level at which any significant epidemic is prevented.

Mr Roper said that he would launch a multilingual immunisation publicity campaign in two weeks.

CONTAGIOUS BACTERIUM FORCES HOSPITAL BABY WARD TO CLOSE

Canberra THE AUSTRALIAN in English 28 Mar 83 p 3

[Article by Jacky Archer]

[Text] SYDNEY'S largest hospital for children is refusing new admissions to an intensive care ward after the discovery of a contagious bacterium.

The Royal Alexandra Hospital for Children at Camperdown in the inner-west of the city, closed the premature babies' ward to new patients when hospital equipment was found to be infected.

The germ, *serratia*, which breeds in moist environments, was found on humidifiers and smaller pieces of equipment in the new-born intensive care ward. It has resulted in eye infections and bronchitis in some patients.

Despite the presence of the bacteria, the general superintendent of the hospital, Dr John Yu, said yesterday the ward would continue to treat new-born babies with congenital heart disease.

But he said other admissions would be transferred by a "stand-by emergency team" to intensive care wards at Sydney's King George Hospital and the Royal North Shore.

Dr Yu said it was unlikely the bacteria would spread to other areas of the 300-bed hospital, but wards would be sterilised this week and new admissions accepted on Friday.

The outbreak of *serratia* follows an epidemic of viral meningitis earlier this year in the maternity wing of Sydney's St George Hospital.

The potentially fatal virus, which attacks the lining of the brain, affected 10 new-born babies before hospital authorities curtailed its spread.

The source of the outbreak is still not known.

But the germ causing major epidemics throughout Australian hospitals is methicillin-resistant *staphylococcus aureus*, commonly called "golden staph" or MRSA — a drug-resistant, communicable disease which is linked with hundreds of deaths and which has infected thousands of people.

So far no measures have prevented the spread of the organism and the only drug effective against it, vancomycin, can have serious side-effects including deafness and kidney damage.

MRSA strains first appeared in hospitals in Melbourne in 1979 and then in Sydney, but are now causing severe problems in hospitals throughout the country. Deaths have been reported even in small town hospitals.

A spokesman from the Commonwealth Institution of Health, Dr Julian Gold, said the disease was a nation-wide problem, firmly entrenched and unlikely to disappear. He said there were no generally accepted measures for preventing the spread of MRSA, which had mutated since the introduction of antibiotics 40 years ago.

In one major Sydney hospital, St Vincent's, MRSA has already forced the temporary

closure of intensive care and surgical wards. In the past two years, three MRSA outbreaks occurred in the intensive care unit, two each in the haematology and cardio-thoracic units and one each in the neurosurgical, vascular surgical and orthopaedic wards.

Researchers at the hospital recorded a 500 per cent increase in the disease between 1980 and 1982, including a jump from three to 93 cases among nursing staff.

The bacteria recently closed the Wagga Base Hospital in the south-west of the State and last year shut the now-defunct Sydney Hospital's only intensive care unit. Wards at Liverpool Hospital in Sydney's western suburbs have also been affected.

Victorian hospitals experienced more than 2500 cases last year. The germ, which kills tissue by invading wounds, ulcers, burns and the site of intravenous tubes, has been linked with a conservative estimate of 200 deaths in the State over the past two years and is widespread in Queensland at three major Brisbane hospitals.

Authorities claim a new drug known as Piperacillin, which has been used successfully in America against the germ, could be available in Australia early next year.

But the chief medical officer of the NSW Department of Health, Dr Trevor King, warned yesterday there was no method of preventing the re-introduction of bacteria.

AUSTRALIA

BRIEFS

MEASLES-MUMPS VACCINE IN WA--A COMBINED measles-mumps vaccine is now available in WA. The vaccine is provided free to the States by the Commonwealth Government under its mass-immunisation programmes. The combined vaccine was made available after a recommendation by the National Health and Medical Research Council that it should be included in childhood immunisation programmes. The new combined vaccine is also suitable for people who have already been vaccinated against the measles or mumps or who have had one of these diseases. A Princess Margaret Hospital doctor said that the possibility of meningitis from the vaccine was extremely rare. If it did occur, it was of a type that cleared itself without complications. [Perth THE WEST AUSTRALIAN in English 11 Apr 83 p 41]

RUBELLA VACCINATION IN WA--The hundred thousandth WA schoolgirl to be vaccinated against rubella received her injection yesterday from the Public Health Department's mobile immunisation clinic. The girl was from the St Thomas Aquinas School in Inglewood. The free immunisation has already had a substantial impact on the number of rubella-related congenital disabilities found in babies born in WA, according to the Minister for Health, Mr Barry Hodge. Mr Hodge said research had shown that in the five years from 1976 to 1980, only seven cases of rubella-caused disabilities had been diagnosed in new babies--compared with 53 cases diagnosed in the previous five year period. Year eight students across the State had the opportunity to receive immunisation provided they had written consent from their parents. [as published] About 85 per cent had accepted the service. [Text] [Perth THE WEST AUSTRALIAN in English 24 Mar 83 p 5]

CSO: 5400/7570

BANGLADESH

BRIEFS

MAGURA CHICKENPOX OUTBREAK--SHALIKHA, April 27--Four persons have been attacked with cholera in village Chupinagar and other villages under upgraded Shalikha thana Local health department confirmed the death but they identified the disease as diarrhoea. A team of health department visited the affected villages and effective measures have been taken. It is learnt from different reliable sources that about 50 persons died and 20 others were attacked by diarrhoea throughout Magura subdivision from 1st to 25 April. Magura hospital sources informed that everyday diarrhoea attacked patients were admitted to hospital. Health department further added that due to heavy drought and scarcity of pure drinking water was the cause of the outbreak of the disease. Vaccination and anti diarrhoea medicines are being distributed in the affected villages. [Dhaka THE BANGLADESH TIMES in English 28 Apr 83 p 2]

DIARRHEA IN MAGURA--MAGURA, April 27--Chicken pox has broken out throughout Magura subdivision including town areas and rural areas. According to an official source a large number of people have been suffering from this disease. Children and infants are the worst sufferer. Suffering people of different parts of the subdivision alleged that no curative medicines are available at local hospitals, rural health centres and markets. They also urged to the authority to take immediate steps to combat the disease. [Dhaka THE BANGLADESH TIMES in English 28 Apr 83 p 2]

SKIN DISEASE EPIDEMIC--NETRAKONA, April 28--Skin diseases have broken out in an epidemic form throughout Netrakona subdivision. According reports, a large number of people have been attacked with various skin diseases at Keudua, Madan Khalajuri, Atpara, Barhatta, Mohanganj, Kalmakanda, Durgapur, Purbad-hala and Netrakona police station of the subdivision. Curative medicines are not available at the local markets and at the health centres and charitable dispensaries, it is alleged. As a result, the people of the affected areas are suffering greatly. [Dhaka THE BANGLADESH TIMES in English 29 Apr 83 p 2]

NOAPARA CHOLERA TOLL--NOAPARA, May 3--Twelve persons died of cholera in Dighalia, Barandi, Noapara and Kota villages under Abhoynagar thana during last two days raising the death toll of 36. The Thana Health Administration says that 45 persons are now under treatment in the Noapara Hospital. [Dhaka THE BANGLADESH TIMES in English 4 May 83 p 1]

MORE CHOLERA DEATHS--TANGAIL, May 4--Six persons died and about 20 others were attacked by cholera in Nandaboyra, Chandbuyra, Dhulerchar and Bhabanipur under Katuly Union of Tangail Sadar thana recently. When contacted, an official of Civil Surgeon Office confirmed the death due to cholera in the aforesaid area. He also said that necessary measures were taken for cholera vaccine in the affected area while a group of health assistants were also sent there to take necessary action. [Dhaka THE NEW NATION in English 5 May 83 p 2]

NOAPARA CHOLERA DEATHS--April 21: Cholera claimed 11 lives within last two days while 42 others were fighting with death in Noapara Hospital, according to a telegraphic message. The Thana Health Administrator Noapar told the NEW NATION that everyday about 20 patients were coming for cholera treatment. Due to excessive eating of water-melon caused the disease, he added. The worst affected areas are: Noapara, Cholsia, Sankerpasha, Dhopadi, Mahakal, Diapara, Ekhterpur, Guakhola, Sarkhola, Maddampur, Piara, Bialiadanga, Sirajkati, Prembag and Chengutia. [Text] [Dhaka THE NEW NATION in English 23 Apr 83 p 2]

CSO: 5400/7111

BERMUDA

BRIEFS

APPEARANCE OF AIDS--The mysterious and deadly disease AIDS--which ravages the body's natural immune defences--is thought to have stricken at least two Bermudians during the last year. Doctors discovered the first case last year when a previously perfectly healthy woman in her 20s, Sharon Selassie, died of a rare type of pneumonia. An autopsy revealed the parasitic lung infection *Pneumocystis carinii pneumonia*--developed from a bird parasite which would normally be easily brushed aside by a healthy person. It suggested an abnormal breakdown of the young woman's natural immune defences--the trademark of AIDS. Her particular type of pneumonia has been a characteristic of AIDS patients ever since the disease gripped public attention in 1981. The second suspected Bermudian AIDS victim is a man in his 30s now being treated for Kaposi's sarcoma--a mild and rare skin cancer ordinarily found in much older men of Mediterranean descent. Kaposi's sarcoma has been identified in about one third of all AIDS victims in the United States. Dr. Keith Cunningham, pathologist at King Edward VII Memorial Hospital, quotes less alarming official US statistics of 1,200 cases over three years. He believes the still-rare disease has attracted attention out of all proportion because of its social connections. But Dr. Cunningham conceded that AIDS is now in Bermuda. It is an almost inevitable consequence of the Island's links with the US, he said. And he is now urging people in high-risk groups not to donate blood. [Excerpts] [Hamilton THE ROYAL GAZETTE in English 29 Apr 83 pp 1, 6]

CSO: 5400/7578

BRIEFS

MALARIA EPIDEMIC AMONG INDIANS--Brasilia--According to a report released yesterday by the Native Missionary Council [CIMI] a malaria epidemic is killing the Indians of Tucuna do Alto Solimoes in Amazonas State. The report revealed that the epidemic started on 29 March this year in the Copercu community where 65 Indians are living. By now five have died for lack of medical care. [Summary] [Sao Paulo FOLHA DE SAO PAULO in Portuguese 16 May 83 p 5 PY]

MENINGITIS OUTBREAK IN BAURU--Bauru reported 62 cases of meningitis in April and 20 in the first few days of May; this development indicates an increase in the incidence of the disease. However, no special counter-measures have been taken inasmuch as, according to Claudio Junqueira de Castro, regional director of the Ministry of Health, the outbreak in question is of the benign type, lymphocytic rather than meningococcic. The health official has predicted that the number of cases will continue to increase throughout May and then noticeably decline in June when the disease will already have run its course. There was also no suspension or change in classroom schedules at the local schools. Virginia Farha, director of the Regional Division of Education, said yesterday that she had received definite information from the health department that the outbreak is benign; moreover, in the department's opinion, a child who is attending school can be more closely watched so that any outbreak of the disease can be more easily detected by teachers and school employees, resulting in immediate treatment. Among the victims of the disease, only two have died until now; but the doctors attribute the death of other complications inasmuch as the children involved were less than 1 year old. [Text] [Sao Paulo O ESTADO DE SAO PAULO in Portuguese 12 May 83 p 12] 8568

MALARIA CASES IN BAHIA--Salvador--With 5 more cases within the past few hours, the number of persons afflicted with malaria in Camacari has increased to 28 in just 15 days. The regional office of SUCAM [Superintendency for Public Health Campaigns] in Bahia has reorganized its spray team and its team for epidemiological observance in the area. Upon releasing this information yesterday, Jose Teixeira de Franca Filho, head of SUCAM's Department of Epidemiology in Bahia, stated the following: "We expect to eradicate the focus of the disease within the next few days and thus put a stop to its transmission." He also asserted that "this is an imported case, coming from the Amazon River region," and said that research conducted to-date has not revealed the transmitter of the affliction. In Camacari alone, SUCAM has concentrated 40 sprayers in addition to the epidemiological observers, and, according to the head of SUCAM's Department of Epidemiology in Bahia, approximately 15,000 blood tests have already been made in Camacari. [Text] [Rio de Janeiro JORNAL DO BRASIL in Portuguese 11 May 83 p 7] 8568

HEALTH SERVICE CONTROL OF CONTAMINATED PRODUCTS PRAISED

Santiago EL MERCURIO in Spanish 3 May 83 p A 3

[Text] Starting on 2 May inspection teams from the Metropolitan Environmental Health Service were installed in the horticultural areas of Pudahuel, Maipu, Penaflor and Conchali to inspect compliance with the resolution published in the DIARIO OFICIAL of last 21 January that prohibits certain crops on farms irrigated with re-used water.

With this kind of water it is prohibited to continue irrigating lettuce, chicory, coriander, parsley, large radishes, small radishes, carrots, strawberries, "frutillas" and "fresones."

Although the measure was made known more than 3 months in advance, many horticulturists interviewed lately do not seem to be aware of the prohibition described nor are they preparing to change crops, or they refuse to do it since potatoes, pigeon peas, corn, etc. require a long wait between planting and harvest, and these producers are used to seeing almost immediately the fruit of their labor.

What is certain, if such drastic measures are not taken, is that produce irrigated with El Mapocho, El Zanjón de la Aguada and other water courses that are really drains will continue contributing to Chile's high index of typhoid fever--20,000 cases in 1982 according to Colegio Medico of which 11,000 pertain to Santiago in addition to other very serious epidemics such as hepatitis and parasitic enteritis.

The resolution of the Ministry of Health, which is the source of the controls on crops in contaminated areas, was proclaimed after a study by the Division of Protection of Renewable Natural Resources from the Ministry of Agriculture.

In the report mentioned it was emphasized that the water courses that traverse urban sectors "deteriorate seriously from the point of view of its chemical and bacteriological qualities which prevent its later use for irrigation purposes."

Hence it is not only applicable to check water that crops receive at the time of production, but in addition the water with which the intermediaries

wash the produce so that it does not arrive dried out on its way to market. Cart drivers also use re-used water to "freshen" vegetables they carry.

The resolution of 21 January specifies that the health authority will reconsider totally or partially the prohibitions in accordance with technological solutions that can be offered, as in the case of the horticulturists even in the vicinities of Zanjon de la Aguada, who irrigate their produce with deep wells or drinking water.

Metropolitan Environmental Health Service Control will be prolonged for as much time as is necessary "to be certain that the resolution is being respected in its entirety." So hope those in Santiago.

9989

CSO: 5400/2079

CHILE

BRIEFS

MALNUTRITION, INFANT MORTALITY DECREASE--The infant malnutrition index decreased to 8.9 percent in our country, reported the minister of Public Health, Rear Admiral Hernan Rivera Calderon, during his talk at the annual assembly of the World Health Organization in Geneva. At the same international forum, Minister Rivera stated that infant mortality has decreased to 23.4 per thousand live births. Moreover, the metropolitan health office announced that, between the end of July and the middle of August of the present year, 100,000 school age children will be vaccinated against typhoid fever. They reside in the western section of the capital and include students in the communities of Quinta Normal and Pudahuel. [Text] [Santiago ERCILLA in Spanish 11 May 83 p 7] 8255

TYPHOID VACCINATION CAMPAIGN--Approximately 100,000 students from villages served by the Western Metropolitan Health Service including Quinta Normal and Pudahuel will be vaccinated against typhoid fever in a second campaign of the ministry branch by these means. In 1982 a similar number of students from the area north of Santiago were immunized. Information was supplied by Dr Hector Rodriguez, head of the Office of Aid to the Programs of the State Secretariat who stated that this is one of the actions aimed at confronting in its entirety the typhoid fever increase recorded the last time in the country, especially in the metropolitan region. Other ways are the prohibition against cultivating low lying vegetables eaten uncooked in areas irrigated with re-used water; the formation of hygienic habits in the community, mainly in individual transporters, and control of food handlers and processing plants. Dr Rodriguez explained that in regard to the short term, the measure most suitable in the search for the control of the disease is vaccination, presently counting on an efficient vaccine that brought about excellent results in the campaign that took place in May 1982 in the area north of Santiago. [Excerpt] [Santiago EL MERCURIO in Spanish 4 May 83 pp C 1, 4] 9989

CSO: 5400/2079

COSTA RICA

BRIEFS

INCREASE IN MALARIA--Health Vice Minister Dr Luis Bonilla has confirmed that an increase in the number of Malaria cases in the first 4 months of 1983 is keeping Health Ministry authorities in a state of alert. Some 26 cases have been reported so far. It is believed that the increase is a direct result of the arrival of refugees from the north. The official added that, so far, the situation is under complete control. [Excerpt] [PA221833 San Jose LA REPUBLICA in Spanish 13 May 83 p 2]

CSO: 5400/2083

INDIA

BRIEFS

CHOLERA IN KARNATAKA--New Delhi, 6 May (AFP)--At least 10 people have died of cholera disease in the south Indian state of Karnataka during the past two weeks, an official press statement admitted today. The disease, which rarely occurs in the advanced countries these days, has struck people in Hassan District of Karnataka State. The district administration has banned all congregations for two weeks to check its spreading, the statement said. In all 72 people have been affected so far. The statement, however, did not say if the trend was upward or arrested. [Text] [BK071506 Hong Kong AFP in English 1504 GMT 6 May 83]

CSO; 5400/7113

INDONESIA

BRIEFS

RABIES IN NORTH SULAWESI--Rabies is spreading now in the Sangir Talaud Archipelago and the Minahasa area of North Sulawesi. A number of persons have died. It has been noted that infected dogs are coming in from various islands in the south Philippines. To combat this problem, the regional government has asked the center immediately to send 500 dozen units of anti-rabies vaccine to be used for the local people. This news was sent via a CB transmitter in Manado to Veterinarian Haryono in Jakarta on Sunday and Monday [3 and 4 April] at 0700 west Indonesian time. The same news was received by Dr M. Adhyatma, director general of P3M (contagious disease prevention and control) of the Department of Health, from his staff in Manado. "It was also received via a CB transmitter," he told KOMPAS on Monday evening. "The problem now is the vaccination of dogs in North Sulawesi. If they already have been vaccinated, these dogs will not get rabies. North Sulawesi, of course, is not free of rabies and has a large dog population," Adhyatma added. The allegation that dogs carrying the rabies virus come from south Philippines needs further investigation. "It may be that our own fishermen, who often go to Mindanao, carry the disease," he said. [Excerpts] [Jakarta KOMPAS in Indonesian 7 Apr 83 p 9] 6804

RABIES IN RADOY--As of Tuesday, 29 March, the series of anti-rabies injections was started for 24 residents of Radoy Village, Tonga Subdistrict, Minahasa (about 100 km south of Manado). This preventive measure was taken to control the possible spread of rabies after the death of Janda Juliana Panggoy-Tendean (60 years old) at the hospital on 22 March. It was known that she suffered from rabies some time before her death. Based on a medical examination which carefully traced the cause of death, it was ascertained that the deceased apparently had been bitten by a small dog at her home sometime in November 1982. The bite did not break the skin. On 26 March, to prevent a spread of the disease, personnel of the Rabies Control Center at the Kalooran Amurang Hospital visited Radoy Village and met with members of her family (children and grandchildren of the deceased) who were immediately involved in caring for her at her home in the hospital. In addition to the 24 residents of the village, all hospital personnel who cared for the deceased were given anti-rabies injections. The hospital supervisor said that 7 injections would be administered in sequence for 7 days and would be followed by 3 other injections that would be administered at specific times. [Excerpts] [Jakarta SINAR HARAPAN in Indonesian 4 Apr 83 p 3] 6804

RABIES IN WEST JAVA--In 1982 some 4,000 persons in the West Java area were bitten by dogs; 6 persons died. The areas most affected by rabies were Bandung City and its regency because these areas are the most densely populated and at the same time are areas in which the dog population has been increasing, according to Dr Dadi S. Argadureja, chief of contagious disease control (P3M) for the West Java Regional Office of the Department of Health, in announcing the coming rabies control working meeting to be held in Bandung on 19 April. [Excerpt] [Jakarta SINAR HARAPAN in Indonesian 9 Apr 83 pp 1, 12] 6804

DENGUE IN CENTRAL KALIMANTAN--Two weeks ago Central Kalimantan was hit with dengue fever which claimed 46 victims, 2 of whom died. Both were children under 10 years of age according to Dr Adriansyah Arifin who represented the chief of the Central Kalimantan Health Service, as he responded to MERDEKA's questions in his office. Further, he said, the area most affected is Sampit (capital of East Kotawaringin Regency), with 40 victims. Several were treated at the Palangka Raya Hospital. One of them died and another died in Sampit. Other than Sampit, the epidemic has hit Palangka Raya. In this second area, 6 persons were stricken. All were cured because they received aid quickly. [Excerpt] [Jakarta MERDEKA in Indonesian 8 Apr 83 p 4] 6804

CHOLERA, GASTROENTERITIS IN KAMPAR REGENCY, RIAU--Cholera which struck 119 victims and resulted in 14 deaths last March in Kampar Regency, Riau, has now subsided. On Tuesday [5 April] Surya Hadi of the Riau Province Health Department Public Relations Office told ANTARA that last week the control team returned from Serapung Village, Kuala Kampar Subdistrict, where the disease had spread. He added that at the end of the last week of March, gastroenteritis had developed in Panipahan Village, Kubu Subdistrict, Bangkalis Regency. Fifty cases were recorded, 5 of whom died, consisting of 4 adults and 1 small child. [Excerpt] [Jakarta MERDEKA in Indonesian 7 Apr 83 p 4] 6804

CHOLERA IN CENTRAL ACEH--Since January some 100 children under 5 years of age, residing in Linggei, Central Aceh Regency, have died of cholera. In general these victims had not received any medical treatment because they lived far from the public health center to which they had to travel on foot through the jungle. Two village heads, Tengku Puten Amat Daud Sir, chief of Pertik Sekinol Village, and Abdul Mattalib Sabda, chief of Owak Village, told reporters in Takengon that from January to March almost 100 children became victims of the disease. Many children have now been evacuated from the area in which the epidemic is spreading. In Pertik Sekinol Village 23 persons died, in Owak 40 children are dead, and in Panton Nangka Village 35 children died. Efforts to save them were made too late because transporting the victims on foot to where treatment could be obtained took 24 hours. [Excerpt] [Jakarta MERDEKA in Indonesian 15 Apr 83 pp 1, 12] 6804

CSO: 5400/8424

DOGS SHOT, VACCINATED IN ANTIRABIES DRIVE

Blantyre DAILY TIMES in English 26 Apr 83 p 3

[Text]

MORE than 287 dogs were killed and 710 vaccinated against rabies during a three week emergency anti-rabies tie-up campaign covering five areas in Dowa District recently.

The tie-up order also helped to reduce the number of stray and unvaccinated dogs which, according to the veterinary officials were the source of the spread of rabies.

The centres which have been covered by the campaign are Dowa boma, Mponela, Mvera, Nambuma and Madisi.

Meanwhile in Mzuzu a 27 year old man, Steven Shaba, died of hydrophobia last week after he was bitten by a rabid dog on March 30.

Steven was bitten around the eye and in the arm pit at Ching'ambo location where he lived.

Confirming the report, a spokesman for the St.

John's Hospital said the victim reported for four injections only instead of the recommended 14. He was admitted in the hospital for a day only.

The rabid dog which ran amok is reported to have bitten several people in Mzuzu and was finally stoned to death at the Mzuzu market.

"We rushed to the scene and picked the dead dog to our laboratory for a post-mortem. The specimen proved positive rabies," a veterinary official told the Malawi News Agency.

He said four other hydrophobia deaths were reported in Chief Mabulabo's area in Mzimba district last month and several cases were reported in Chilumba, Karonga District.

Meanwhile, the Regional Veterinary Officer for the North has announced that there will be a rabies control tie-up order from May

2 to 13 covering Mzuzu Municipality and other places.

During the tie-up order, a veterinary team will conduct a house to house dog check to ascertain that all dogs are vaccinated against rabies.

Dogs will be required to be on chain during the anti-rabies campaign to enable the team vaccinate the dogs.

The team will vaccinate dogs around Lusangazi Forestry and Lukalazi Primary School on May 7, Matuli and Chiwiri on May 9. On May 10, they will cover Dunduzu and Lupaso.

On May 11 the team will be at Nkholongo and Doroba primary schools.

Kavuvu Primary School and Viphya branch will be covered on May 12. On May 13 they will be at Garang'ombe and Muzgora schools.

CSO: 5400/255

RESTRUCTURING, REGULATING MEDICAL PRACTICE RECOMMENDED

Karachi DAWN in English 23 May 83 p 7

[Text]

A LEADING medical practitioner has written to us pointing out that there is a surplus of doctors in the big cities and no step has been taken by the PMA or any other doctors' organisation to prepare a scheme for setting up these doctors in private practice in rural areas. The widespread unemployment of young medical graduates is being attributed to this glut of doctors, which, incidentally, present a paradox. On the one hand, all the medical graduates being produced in the country every year are not being absorbed in the health system. On the other, there is a shortage of medical practitioners even in big cities, let alone villages and small towns. The suggestion that the PMA and other doctors' organisations should prepare a scheme for organising private practice in the rural areas to provide jobs for young doctors is basically sound. It is now quite obvious that the Government, on whom rests the primary responsibility of providing health cover to the people, has proved incapable of performing this function unaided. It lacks the political will as well as resources to cope with the health needs of a fast-growing population. In such a situation, it is only realistic that greater reliance should be placed on private effort while the Government is persuaded to enlarge the scope

of its activity. The doctors' bodies should act on a self-help basis and create an infrastructure for private practice which could absorb many of the young doctors who do not have a job at the moment. This can be expected to make a significant contribution towards a solution of the problem of unemployment of doctors.

Our correspondent suggests that there is a concentration of doctors in big cities like Karachi. But the fact is that even in Karachi the public health system is under tremendous strain. Doctors are not easily available in many localities. The pressure on the medical practitioners is immense and not equitably divided. One aspect of this situation is that doctors do not feel obliged, and in some cases find it possible, to give sufficient time and attention to their patients. As we have stressed before, while it is the responsibility of the Government to ensure for the people easier access to medical facilities, the PMA could do its own bit by preparing a scheme for private practice in cities. In this context, there are quite a few options to consider and explore. The PMA could, for instance, enter into an arrangement with the Banking Council envisaging for banks to provide consulting rooms for doctors on a hire-purchase basis. Alternatively, groups of doctors could

set up polyclinics on a cooperative basis. The underlying idea is that the availability of doctors in every locality is ensured. This in itself should be enough to drive many of the quacks out of business, for given a choice between a qualified doctor and a so-called unregistered medical practitioner, it is obvious that people will prefer the first.

Once the placement of doctors in every locality of the city is achieved, the PMA should give attention to the question of restructuring the present system of private practice. Two issues are of vital importance. First is the availability of medical service at all hours and second is promoting the concept of family medicine. In this context, group practice offers considerable potential and should be seriously explored. It creates employment for a number of medical graduates with the minimum of investment in apparatus and accommodation. Moreover, three or four doctors practising in the same premises can, by staggering their timings and taking turns to be on call for emergencies during the night and on holidays, ensure the availability of medical facilities round the clock. It is also im-

portant that the key role of the general practitioner in the medical system be adequately recognised. It is the GP who is best qualified to establish proper rapport with his patients, give them sympathetic understanding in their sickness and refer them to the specialist when necessary. In view of the convenience offered by such a system, the patient would be inclined to go to the same practitioner every time he falls ill. But the GP must also be expected to live up to his professional obligation. He must be prepared to give sufficient time and attention to his patients. He should also maintain regular records of his patients' medical history, diagnosis and treatment. It is also important that the practice of GPs dispensing medicine to their patients be discontinued. If dispensing chemists working independently of doctors be assigned the function of preparing medicines prescribed by the doctors, the temptation will not be there for the doctor to over-medicate his patients or unduly prolong their treatment. It need hardly be stated that private practice in medicine needs restructuring and a degree of regulating. The PMA is best suited to undertake this task.

CSO: 5400/4725

TRAINING UNREGISTERED MEDICAL PRACTITIONERS DEFENDED

Karachi DAWN in English 21 May 83 p 9

[Text]

Today, there are 15,000 M.B.B.S. doctors and 40,000 un-registered allopathic doctors who are providing medical aid to the people but the number is too insufficient to cater for the medical needs of a country of 8.5 crore population.

The Federal Government (Ministry of Health) takes the plea that after promulgation of Medical and Dental Degrees Ordinance, 1982, these unregistered allopathic doctors cannot render any medical service to the people as they pose a health hazard for the population. This has created a critical situation in the national health affairs.

There has been a serious reaction in every walk of life against this 1982 Ordinance demanding amendment. The Pakistan Medical Association also has appealed to the President to amend the Medical and Dental Degrees Ordinance 1982, and to repeal the Allopathic System Ordinance, 1962, and rules of December 3, 1968, so that the present "registration scandal controversy" is closed for ever.

India is giving training to 150,000 unregistered practitioners in order to register them. In China, 1600,000 unqualified doctors are now administering to the needs of the public under the name of "Barefoot Doctors". In U.S.A. there is a Medical Task Force in about 23 states; and in Iran recently the Beyar Project for rural medical aid has been introduced. In several other developing countries such projects of lower category doctors are working successfully.

In Pakistan, there has always been a big gap between the number of qualified doctors, and the needs of the population. It is the unre-

gistered doctors who have filled the vacuum and have since the creation of Pakistan supplied the requisite medical aid.

Allopathic System (Prevention of Mis-use) Ordinance, 1962 (LXV of 1962) was promulgated in 1962. In accordance with the Ordinance, ultimately Rules were framed on December 3, 1968 and has been held filed till today. These Rules were framed but not enforced despite appeals by the Pakistan Medical Practitioners Association. Consequently, a writ petition was filed by the Pakistan Medical Practitioners Association in the Lahore High Court, which was disposed of in the favour of the Pakistan Medical Practitioners Association on 21.9.1981 by Mr. Justice M. Zafarullah.

Now when on 8.9.1981, the provincial government did finally agree to enforce the rules, it is imperative that these must be enforced in all the four provinces. The prevention of misuse of allopathic medicines is essential not only in Punjab but also in the other provinces. Quackery is not confined only to Punjab. Therefore, we request you that the Federal Government should hold a meeting of the Health Secretaries of the four provinces in order to frame a code for the new impartial health policy. Such policy should be framed, which should be free of all inter-provincial contradictions. There must be co-ordination in the health policies of the provinces and such a policy must be framed and enforced by the Federal Government's Ministry of Health.

A fresh Writ Petition No.93/83 of Pakistan Medical Practitioners Association along with many identical

writ petitions of the various medical organisations of unregistered allopathic doctors has been admitted in the Lahore High Court for regular hearing in order to obtain the permit for clinical practice in accordance with Allopathic System Ordinance (1962) Rules of December 3, 1968. The next date of hearing is expected sometime in May.

We submit the following facts and realities of the situation for a comprehensive view of the whole picture:

The revolution in rural medical cover, with 40,000 skilled persons known as unregistered allopathic doctors as its backbone has provided aid on the curative side! Thereby bringing about a radical change on the rural health scene where doctors and medical facilities have always remained short.

These unregistered allopathic doctors have come forward and become mature in the past 35 years. They have shattered the monopoly of the M.B.B.S. doctors and have provided balanced and cheap medical facilities to the poor and middle class people.

Unfortunately owing to the professional jealousy and commercial rivalry of the M.B.B.S. doctors and the Federal Health authorities (who also are qualified doctors), they are not prepared to acknowledge the utility and skill in the medical field of the unregistered doctors.

Instead of recognising the positive role of the unregistered doctors, the M.B.B.S. doctors are treating them as quacks and spreading a tide of false propaganda that unregistered doctors cannot provide any treatment to the peoples and are a danger for national health.

In the circumstances, we accept the challenge of M.B.B.S. doctors and are prepared to sit in an oral

and written test because the majority of unregistered allopathic doctors is well-versed in medicine and pharmacology of modern drugs.

The actual number of practicing unregistered allopathic doctors is 40,000. But amalgamation of skilled or unskilled practitioners throughout the country would require a scientific and rational method for the expulsion of unskilled (quacks) practitioners from the medical profession without creating any injustice to the skilled unregistered doctors.

In this regard, the proposals are as follows:

The Federal Ministry of Health should set up an impartial screening board which, on the basis of a short syllabus of medicine and pharmacology, hold an examination for the purpose of granting registration to the successful unregistered doctors in a category lower than the M.B.B.S. doctors.

If this may not be possible, an impartial "Medical Commission" should be constituted under the chairmanship of a retired Chief Justice in order to suggest another ordinance regarding the registration of deserving unregistered allopathic doctors on their merits vis-a-vis eradication of quacks (unskilled practitioners) from the medical profession for ever.

Or else, those unregistered allopathic doctors who have more than 7 years' clinical practice should be given medical training in the district and Tehsil hospitals in order to convert them into more useful members of the medical profession.

Regarding the expenditures of the training course, the unregistered doctors (candidates) will be prepared to foot the entire bill.

JEHANGIR PERVAIZ

President, Pakistan Medical Practitioners' Association, Adjacent Singeet Cinema, Shahdara, Lahore.

CSO: 5400/4725

MEDICAL ASSOCIATION CALLS FOR BAN ON QUACKS

Karachi DAWN in English 8 May 83 p 12

[Text]

The Executive Committee of the Pakistan Medical Association, Karachi, has urged upon the Government to take immediate measures to implement the Anti-Quackery Ordinance in letter and spirit.

The Executive Committee, which met here said that thousands of qualified doctors were coming out of the 17 medical colleges including the Armed Forces Medical College, and that the young doctors have never refused to go to the rural areas.

In Sind alone, all the 527 vacancies are filled up and the young doctors are still looking for jobs.

The meeting felt that the menace of quackery was well known and it was the prime duty of doctors practising scientific medicine to apprise the general masses and

others regarding the havoc created by the quacks in the country under the garb of health delivery system.

The Committee observed it is high time that hard facts were raised by everyone regarding registration of quacks under one or the other excuse.

It said, a scientific system of medicine having highly patent and dangerous drugs, cannot be allowed to be used by quacks to play with the human lives.

It said registration of quacks would darken the prime objective of health. The meeting also expressed its concern over the recent statement of the Minister of State for Health, Begum Afifa Mamdot about the quackery, said a Press release issue by PMA Karachi here yesterday.—PPI

CSO: 5400/4722

IMMUNIZATION CAMPAIGN TARGETS DISCUSSED

Karachi DAWN in English 8 May 83 p 11

[Text]

THERE is no denying that availability of medical hardware immunisation is the cheapest way meant for this programme. It has also been reported that because of the heightened interest in immunisation people have been visiting health centres seeking the services for themselves also, and not just for children for whom the scheme is intended. This is an excellent opportunity to cover a large number of the population and the health authorities should give some thought to extending the programme for all. If it can be managed — applicable, of course, to diseases which are not restricted to childhood only, such as tetanus — then it will be a big step forward in the health care plan. The primary emphasis must remain on children though. In this context it will be instructive to know exactly how well the campaign is proceeding in terms of the targets set. The immediate target is immunisation of 30 per cent of children up to five years of age by June next year, whereas all children are hoped to be covered during the Sixth Plan. It will be helpful to know whether the campaign is proceeding according to plan so far, or whether shortages of vaccines or hardware have slowed down progress.

CSO: 5400/4722

MINISTER SAYS COMPLETE ERADICATION OF MALARIA DIFFICULT

Karachi DAWN in English 1 May 83 p 5

[Text] RAWALPINDI, April 30: Dr Nasiruddin Jogeza, Federal Minister for Health and Social Welfare said that there is no possibility of complete eradication of malaria from Pakistan in the near future.

He was talking to PPI correspondent after inaugurating the Muslim Homoeopathic Medical College here on Friday evening.

He held the view that Pakistan was the country of floods and rains where majority of its population lived in remote rural areas. The sanitary, drainage and hygienic conditions are very poor in our rural areas. There is a great need for creating general awareness amongst the people for the observance of health and hygienic principles, he added.

The Minister said masses of our villages lived in low-lying areas, where there were no proper measures for the drainage of the rain waters, which stagnated in dirty ponds and pools for months. These ponds, he said, helped spread diseases among the people.

Efforts are underway to teach the people about basic principles of health and cleanliness. But he pointed out, so long as our people do not realise their responsibilities in connection with the observance of general health principles, there is no hope of complete eradication of malaria. No effort on the part of the Government can succeed in this connection without the co-operation of the masses, he added.

Comprehensive plan

In reply to a question, he said a comprehensive plan was under the active consideration of the Federal Government under which a "mass education and welfare scheme" was to be launched in rural areas through local bodies.

Under the said scheme, Dr Jogeza said, all available resources shall be utilised on village, tehsil, district and divisional levels through local bodies for resolving the civic and health problems of the people.

Efforts shall be launched to

eliminate ponds and pools of stagnant water from the health and cleanliness. But he said, so long as our people do not realise their responsibilities in connection with the observance of general health principles, there is no hope of complete eradication of malaria. No effort on the part of the Government can succeed in this connection without the co-operation of the masses, he added.

In reply to another question, the Health Minister said it was a pity that MBBS courses, which should be completed within 5 years had been prolonged even to 8-year period. The reason, he said, was uncertain atmosphere and frequent strikes in the country, which every now and then lead to the closure of the educational institutions. This results in delaying the completion of courses in scheduled time, he explained.

This is a matter, he admitted, where the Federal Government is quite helpless, as it concerned the Provincial Governments. "We cannot force the Provincial Governments to stick to the prescribed period due to uncertainty that prevailed in our educational institutions", he added.—PPI

CSO: 5400/4722

BRIEFS

ILLITERACY AMONG MIDWIVES--The survey conducted in 40 villages of the interior of Sind has disclosed that 95 per cent of "dais" (traditional birth attendants) are illiterate while the remaining five per cent can only read but can not write. The survey carried out by the Sind Health Department in collaboration with UNICEF indicated that 82 percent dais had inherited this profession. During the last one year 40 per cent dais had conducted one to twenty deliveries, 22.5 per cent had conducted 20 to 40 deliveries while 32.5 per cent had conducted 40 to 60 per cent deliveries. The remaining five per cent were busy dais having delivered about 60 babies during the year. The dais were not well versed with the concept of post-natal care, and only 28 per cent of them looked after babies for one or three days; 19.5 per cent claimed they cared the baby upto 28 days after birth. The survey revealed that 47 per cent of the births are reported by the parents. Not a single dai kept a record of the deliveries performed by her. The dais reported that herbs, fish, butter and "halwa" was the special food given to mothers after delivery (in fifty per cent of dais this concept had a firm foothold). The rest of dais did not consider such food essential.--PPI. [Text] [Karachi DAWN in English 19 May 83 p 10]

PUNJAB IMMUNIZATION PROGRAM--Lahore, 20 May--Inaugurating the first course of the first-aid training programme, launched by the Punjab Red Crescent Society, at the call of the International Red Cross Society, Brig. Manzoor Malik, Secretary, Health, Punjab, said that Punjab Government has undertaken a massive programme to immunise all children, upto the age of 13, in the province from eight common diseases. He said that volunteers were being enrolled for carrying out this gigantic task, besides deploying all trained personnel of the health services. He assured the participants of the courses that they would also be associated with immunisation programme and would also be paid some honoraria. The Punjab Governor, the Health Secretary said was taking keen interest in the welfare and health of children and their mothers, among whom the mortality rate was higher than other sections of people. He called upon the people to know the techniques of rendering first-aid in greater number, as it was helpful in controlling 50 per cent complications among the wounded people. Brig. Manzoor Malik pointed out that the Government had also started a programme to control diarrhoeal diseases for which lakhs of packets of oral dehydration salts were being distributed among people, especially the children. He hoped that these measures would go a long way in eradicating children's diseases. Earlier, Begum Masood Sadiq, Chairman, Punjab Red Crescent Society, in her

welcome address said that the course had been started at the call of the International Red Crescent Society for training maximum number of people in first-aid. The course would be of four-week duration and would be followed by a series of similar courses. As many as 150 participants, both male and female, are taking part in the course.--APP. [Text] [Karachi DAWN in English 21 May 83 p 4]

CSO: 5400/4725

PEOPLE'S REPUBLIC OF CHINA

HEILONGJIANG CONTROLS ENDEMIC DISEASES

OW220334 Beijing XINHUA in English 0252 GMT 22 May 83

[Text] Harbin, 22 May (XINHUA)--Effective treatment of enlarged goiter and other measures taken by the local government have helped a "fools village" in a remote area of northeast China Heilongjiang Province become healthier. Nearly the 200 households in Jixian village had children or adults who were retarded, some of whom even could not take care of themselves. The village was backward and poor since 859 out of its 1,313 people suffered from enlarged goiter.

A three-year drive has brought goiter under control. Seven hundred fifty-eight patients have been cured. Fifty retarded children and adults have improved their intelligence and health. New babies are all normal.

Measures taken included supplying all the villagers with iodized salt, iodine oil injections for women of child-bearing age, and medication or operations for all sufferers of the disease. The village built a water tower and laid pipes to all the households to provide clean drinking water.

Heilongjiang Province has been one of the high incidence areas for endemic goiter, Keshan disease, Kaschin-Beck disease and fluorosis. It has set up research institutes on endemic disease control which have 400 medical researchers.

Now, 1,360,000 goiter patients in the province have been treated, accounting for 77.4 percent of the total number. Keshan disease, once rampant, has also been brought under control.

CSO: 5400/4143

PHILIPPINES

BRIEFS

MALARIA DRIVE IN MINDANAO--ZAMBOANGA CITY--An intensified and sustained drive against malaria in Region IX with a population of 2.5 million has been launched by the regional office of the Ministry of Health. Regional Director Hilarion Ramior, Jr., a "TOYM and Lingkod Bayan awardee" reported there is now a reduction of malaria cases since the campaign was started last year on the instruction of Minister Jesus C. Azurin. The regional official who personally supervised the anti-malaria project in the field has been afflicted by the disease attesting to his devotion to duty as a dynamic administrator. "In the service of the people I am willing to risk my life that others may live--for it is my solemn duty as a health official to go to the field without fear of being stricken by a dreaded disease," Ramiro said. Supporting the drive is the autonomous government, provincial and local officials in the region coupled with the massive participation of the people in the different communities. The regional direction has also introduced an innovative approach in combatting malaria by training some 100 midwives, nurses and sanitary inspectors as microscopists to effect instant examination and result of blood test taken from people who might be positive with the disease. Ramiro, in cooperation with the autonomous government, is giving incentives to village health workers involved in the malaria campaign. [Text] [Manila BULLETIN TODAY in English 16 May 83 p 14]

DIARRHEA, MEASLES DECREASE--DIARRHEA cases in Metro Manila has dropped by nearly 50 percent, the biggest decrease so far registered among major communicable diseases this year, the health ministry reported yesterday. The MOH disease intelligence center said disease records for last week also showed a marked decrease in the incidence of measles. Dr. Julio P. Valera, DIC chief, said both diarrhea and measles cases have been on the rise since summer started. Until recent weeks, reports of measles epidemics with many deaths have even reached the ministry, he said. VALERA said diarrhea cases admitted at the San Lazaro Hospital, used as index for occurrence of diseases in the metropolis, only totalled 65 cases last week. The number is almost half of the reported 119 cases the previous week, and way below the five-year high of 234 cases. Only two cases from the neighboring provinces were recorded, while the rest of the victims came from Metro Manila, Valera said. Reports of diarrhea were, meanwhile, also received from Dagupan and San Carlos cities, both in Pangasinan, Cotabato City, and Roxas City, he added. [Manila PHILIPPINES DAILY EXPRESS in English 16 May 83 p 6]

CSO: 5400/4422

PORUGAL

BRIEFS

MEASLES EPIDEMIC--An outbreak of measles of epidemic proportions has been raging for several weeks already in the town of Vila Real, more than 100 cases having been reported among children. According to a spokesman of the Health Department, the situation is not dramatic, although no special precautions have been taken to isolate the outbreak, which may have occurred as a result of climatic conditions. [Text] [Lisbon DIARIO DE LISBOA in Portuguese 10 May 83 p 24] 12342

CSO: 5400/2543

BRIEFS

DYSENTERY DEATHS, INCIDENCE--Dysentery has killed five people in Lindi Rural District and the Lindi Region Medical Officer, Ndugu Samwel Mgeni, has warned people against the disease which has reached epidemic proportions. He said the five victims died in Rutamba-Ronde Village. Fifty other people have been admitted at the regional hospital. Dr. Mgeni said the disease broke out for the first time in the area last October. However, since this week, the number of patients has risen sharply. The disease has now spread to all districts of Lindi Region. They are Lindi Urban, Lindi Rural, Kilwa and Nachingwea, he said. He said that other deaths resulting from the same disease had been reported in other districts but he did not give the exact number. He said the spread of the disease was due to failure to observe sanitation by the people. The regional committee charged with the task of recommending control measures against epidemics met on Monday and was expected to meet today to draw up new measures against the disease. [Excerpt] [Dar es Salaam DAILY NEWS in English 18 May 83 p 3]

MEASLES VACCINATIONS--The reluctance of some families to take their children to clinics for vaccination against measles was hindering national efforts to control the disease, the Minister for Health Aaron Chiduo, has said. Talking to newsmen in his office in Dar es Salaam on Thursday, Dr. Chiduo said the ministry has realised through an evaluation exercise that it was only a small proportion of children who were being vaccinated, SHIHATA reported. The evaluation, carried last year, showed that only 25 per cent of all children were being inoculated compared to 60 per cent as anticipated by the ministry, he said. The minister said this contributed to rapid spreads and many fatalities whenever an outbreak of the disease occurred. Another reason which made the control of the disease difficult, was lack of storage facilities. He explained that while the vaccine drugs required cold temperature throughout their storage, it was difficult to observe the condition because of "our country's varying weather." "As such" he said, "in the process of being moved from one region to the other the vaccines get spoiled." [Excerpt] [Dar es Salaam DAILY NEWS in English 21 May 83 p 3]

DYSENTERY OUTBREAK UNDER CONTROL--Tanga--The outbreak of dysentery at Tanga Technical Secondary School last week which had affected several students is now under control, the Municipal Senior Medical Officer Dr. H. A. Kasale, said in Tanga yesterday. He said all the six students admitted at the Bombo regional hospital last week had been discharged. He added however that four students were still being treated at the school's temporary ward. Municipal health authorities attributed outbreak of the disease to poor sanitation at the school and the broken pipes of the school's water supply system which was reportedly contaminated. [Text] [Dar es Salaam DAILY NEWS in English 13 May 83 p 3]

INTER-AFRICAN AFFAIRS

BRIEFS

CATTLE PLAGUE CENTERS--Rome (Agencies)--Important centres of cattle plague were recently discovered in Ethiopia, Upper Volta, Ghana, Benin, Niger, Nigeria, Chad, Egypt, Sudan and Tanzania, the United Nations Organization for Food and Agriculture (FAO) announced here. The cattle plague caused high mortality of ruminants, particularly cattle and buffalo. FAO announced that the situation was most serious in Nigeria, Sudan and Chad and that neighbouring countries were threatened. [Text] [Addis Ababa THE ETHIOPIAN HERALD in English 26 Apr 83 p 3]

CSO: 5400/261

BANGLADESH

BRIEFS

CATTLE DISEASE OUTBREAK--PIROJPUR, Apr 26--Cattle disease has broken out everywhere in Pirojpur thana in epidemic form. There is no medicine in the thana livestock hospital. The cattle have become unfit for cultivation. The farmers are suffering and they urged the government for taking urgent steps.
[Dhaka THE NEW NATION in English 28 Apr 83 p 2]

CSO: 5400/7115

NIGERIA

CATTLE VACCINATION TO REQUIRE 800 MEN

Kaduna NEW NIGERIAN in English 7 Apr 83 p 1

[Article by Sulaiman Gambari and Modupe Motojehi]

[Text]

THE National Co-ordinator of the Emergency Rinderpest Control Committee, Dr. S.B. Oluokun said in Kaduna yesterday that about 800 inoculators would be required to vaccinate cattle against rinderpest throughout the country.

He also said about 12 million Naira annual subvention would be required to fight rinderpest.

He told the New Nigerian at Durbar Hotel, Kaduna that under the emergency control programme, each inoculator would vaccinate a minimum of between 100 and 200 cattle each day.

He said for 20 days each month, an inoculator is expected to vaccinate not less than 4,000 cattle.

Rinderpest in Nigeria today, he said, "is a national disaster because it is a problem which is not restricted to a particular state in the country."

Dr. Oluokun urged that a panick measure should be used to combat the disease because it would only result in the short-term measures that would not provide a permanent solution.

He warned that the disease, though alarming, could not be eradicated in one day and suggested that to be effective, vaccination of cattle should continue for a minimum of three years after which a conservation period should be observed before starting again.

He said a period of 10 years would be required to adequately combat the problem of rinderpest.

Dr. Oluokun suggested the establishment of more vaccination-producing companies to augment the efforts of the National Veterinary Research Institute Vom in Plateau State which is the

only establishment in the country that produced vaccine for poultry, cattle and other animals.

He said as a result of the current boom in poultry production, the institute was faced with problems of coping with demands.

Another report, said that only 311 out of about three million heads of cattle in Sokoto have so far been affected by the disease.

Seven out of the affected cattle have died while efforts were also been intensified to make sure that the disease did not spread further.

A competent source disclosed to the New Nigerian in Kaduna that only 1,389,202 of the cattle had been vaccinated with the available 1,408,900 doses of vaccine.

The source said although consistent effort had been made to curb the spread of the disease, the government must allocate enough funds to ensure that the calf were immunized early enough, adding that they were more prone to infections than the adults.

CSO: 5400/256

PAPER URGES ERADICATING RINDERPEST 'FOR GOOD'

Kaduna NEW NIGERIAN in English 8 Apr 83 p 1

[Editorial: "The Rinderpest Scourge"]

[Text]

ABOUT a decade after it was believed to have been eradicated, rinderpest (i.e. the cattle plague) now appears to have returned with a vengeance. First reports of its return came late last year. By November, 846 cases had been reported in Sokoto with 37 deaths, 957 in Kaduna with 92 deaths and 1,538 in Bauchi with 115 deaths. By the end of March this year at least 300 cattle had died in Kaduna, 700 in Gongola, 50,000 in Bauchi in addition to 393 of the 400 buffalos in the state's Yankari Game Reserve, and 10,000 in Plateau. There have been suspected outbreaks in Kano as well as Oyo states.

The implication of these alarming death figures for the availability of protein in the country is obvious. Beef is the biggest source of protein supply in the country, and even without rinderpest, protein is in short supply in the country anyway. Besides, protein, cattle is also an important source of milk.

Worse is that the disease is a threat to the means of livelihood of the Fulani and others who live by raising and trading in cattle. Thirdly, although the disease is believed not to infect human beings, either through contact with or consumption of infected cattle, the rinderpest virus is said to be related to the virus that cause measles in man. Above all, because rinderpest is a virus, it cannot be cured; cattle can only be made immune from its attack.

By all accounts therefore the outbreak of the disease is a national disaster that calls for a massive preventive campaign. For an idea of the magnitude of the problem let us take Gongola State as an example. There the cattle population is said to be 4,282,171. In other words there are over four and a quarter million cattles to be vaccinated in one of 19 states alone.

Yet according to Dr. S.B. Oluokun, the Chief Veterinary

Officer of the Federal Livestock Department, the vaccines available from the only Veterinary Research Centre in Vom, Plateau State, are grossly inadequate even for one state alone. So also is the funding from both the state and federal governments. According to Dr. Oluokun 3.5 million Naira has already been made available to fight the disease. This is quite a lot but it is still only one quarter of what he says it would cost the country to stem the spread of the disease and to eventually wipe it off in about ten years from now.

Happily the authorities are up and about. Help, says President Shehu Shagari, is already being sought from Kenya, India and relevant international organisations. We hope that by the time the campaigns to contain and eradicate the disease are launched on April 25 and May 2 at the federal and state levels, there will be enough of everything needed to eradicate the disease for good.

CSO: 5400/256

NIGERIA

BRIEFS

CATTLE VACCINATIONS IN KADUNA--Kaduna State Ministry of Animal Health and Livestock Services has vaccinated 362,653 cattle against rinderpest between early March and mid-April, this year. The vaccination is expected to cover the entire two million cattle in the state. A release from the ministry said it had embarked on a vaccination campaign. A total of 7,134 cattle have died from 134 separate outbreaks recorded so far, the release stated. The ministry appealed to all livestock owners, especially Fulanis, to co-operate with the divisional veterinary officers and livestock superintendents in carrying out the preventive, curative and quarantine control measures against the disease. [Text] [Kaduna NEW NIGERIAN in English 30 Apr 83 p 16]

VACCINATION OFFICERS IN 'DEALS'--The Co-ordinator of the Green Revolution Committee in Kaduna, Dr. Abdu Ho, has warned vaccination officers to desist from demanding for money before herds of cattle were vaccinated against the outbreak of rinderpest in the state. He told the New Nigerian in his office yesterday that he had received complaints that certain officers were demanding for 100 Naira from the herdsmen before their cattle were vaccinated. He therefore warned that any officer caught in such illegal deal would be dealt with, pointing out that the doses of vaccines were purchased by the Federal Government for vaccination of cattle due to the recent outbreak of rinderpest in many states. This, he said, was to be carried out free of charge, adding that no one had been given the mandate to receive such money on behalf of the Federal Government. He appealed to the herdsmen to insist on having the vaccination free and to report any officer who might have allegedly received money for vaccinating the cattle. The co-ordinator also said the Federal Livestock Pest Control Department and the Veterinary Research Department in Kaduna would be fully engaged to monitor the movements of the vaccination officers so as to ensure that the Federal Government efforts of aiding the victims were not thwarted. [Kupe Motojehi] [Text] [Kaduna NEW NIGERIAN in English 30 Apr 83 p 9]

CSO: 5400/256

PORUGAL

BRIEFS

CATTLE PLEUROPNEUMONIA FOCI--Contagious cattle pleuropneumonia has turned up again in Portugal and was diagnosed on cattle ranches in the Monção, Barcelos, Famalicão and Felgueiras counties, in the Entre Douro and Minho areas of the Regional Department of Agriculture. Contagious cattle pleuropneumonia can cause extensive financial losses if it is not contained and eradicated within a short time. [Text] [Lisbon O DIA in Portuguese 6 May 83 p 2] 12342

CSO: 5400/2543

TANZANIA

ANTIRINDERPEST CAMPAIGN IN ARUSHA, MWANZA REGIONS

Dar es Salaam DAILY NEWS in English 17 May 83 p 3

[Text] The anti-rinderpest campaign in Arusha Region entered its second week yesterday with thousands of cattle having been vaccinated in 34 villages of Kiteto District.

According to an operational schedule released yesterday by the Arusha Regional Livestock Development officer, Dr. Cuthebert Hatibu, the campaign proceeds in 31 more villages of the same district this week.

Shortage of tyres and fuel had affected the campaign progress, but officials informed SHIHATA that the transport problem was being solved.

The officials reported that there was good response by livestock keepers in Arumeru and Kiteto districts with an estimated 200,000 cattle to be vaccinated in Kiteto District alone.

Meanwhile, livestock markets throughout Arusha Region were still closed following the rinderpest outbreak. Cattle movement is also restricted due to the quarantine imposed on the region.

Meanwhile, veterinary officers in Mwanza Region meet in Mwanza today to chart out the strategy to prevent the spread of rinderpest in the Lake Zone region.

Although no outbreak had been reported in the region, the Acting Regional Livestock Development Officer, Ndugu O. R. Katunzi, said the region had taken preventive measures since the disease broke out in neighbouring regions.

He said innoculations against rinderpest would start in July, this year, during which a total of 1,338,943 heads of cattle were expected to be covered in the region.

The breakdown of cattle in each district is: Magu--288,442 heads of cattle; Sengerema--200,898; Misungwi sub-district--212,584; Ukerewe--299,955; Geita--27,779; and Mwanza--17,419.

Ndugu Katunzi explained that in the past years cattle in the region were not vaccinated against rinderpest because the disease had not been reported in any part of the country.

CSO: 5400/272

TANZANIA

BRIEFS

RINDERPEST VACCINATION CAMPAIGN--Transport problems aggravated by shortage of tyres are hampering a three-week campaign to vaccinate livestock in Kilimanjaro Region following an outbreak of rinderpest in Arusha Region. The Kilimanjaro Regional Veterinary Officer, Dr. Louis Tesha told SHIHATA in Moshi yesterday that the campaign which started last Monday in Hai, Moshi, Mwanga and Same districts was expected to be completed by May 31. About 132,000 livestock are to be vaccinated in that period. However he said that the emergency national campaign in the region was being affected by shortage in vehicles due to no availability of tyres. Although 13 landrovers and four lorries had been allocated for the campaign, there were only two landrovers and two lorries, Dr. Tesha said. Dr. Tesha added that the regional stores had been promised tyres by the Arusha-based General tyre factory, but when they went there yesterday they were told there were none as the factory's boiler was leaking. He pointed that as the campaign was taking rather a long time the quarantine imposed on the region since May 7 will have to be extended. The vaccination campaign had been necessary in those districts was prompted by an outbreak in the neighbouring Kiteto and Arumeru districts where the disease killed many livestock. Dr. Tesha said that the disease had not been reported in Kilimanjaro Region but there was need for precautions. [Text] [Dar es Salaam DAILY NEWS in English 13 May 83 p 3]

CSO: 5400/271

WA DATA SYSTEM NOW MONITORING INFESTATION INFORMATION

Perth THE WEST AUSTRALIAN in English 6 Apr 83 p 53

[Text]

PROTECTING Western Australia's vast agricultural resources from the introduction and spread of harmful plant and animal life is crucial to the State's economic stability.

WA's \$2000 million-a-year industry feeds millions throughout the rest of Australia and the world.

The consulting division of Comserv Australia Pty Ltd recently completed the design, development and implementation of data recording systems for the Agriculture Protection Board of WA. The biggest of these systems is for the collection of infestation data from over one hundred field officers throughout the State.

Using the Comserv system, a properties database has already been created containing 15,000 entries.

By July 1983 it will grow to nearly 30,000.

The database permits the recording of infestation data, quarantine

and statutory notices. It is possible to perform statistical and time-trend analyses of changing levels of infestation from this information.

The system can also mail warnings to property owners, selected on the basis of location and type of infestation. This will be used to remind 'clients' of their obligation to eliminate infestations and advise them of the most appropriate treatment and control methods.

There are facilities to list all properties occurring within a given distance from any outbreak of exotic diseases.

All the systems are integrated, with invoicing, stock control and reference data, to form the board's computer-

ised management information system.

At an early stage of the project, Comserv's research showed a requirement for a fuller definition of properties than would be usual for most systems. This has paid dividends, with the properties database now being made available to other users within the Department of Agriculture. It is expected to provide an interface for systems on which Comserv is currently performing feasibility studies.

According to Comserv, the APB system has been a text-book project. Fully documented to WA Government standards, each phase was implemented on-time and exactly according to the predicted budget.

CSO: 5400/7577

AUSTRALIA

BRIEFS

FRUIT FLY DECLINE--FRUIT-FLY numbers in the Carnarvon area are decreasing, according to the Agriculture Department. An entomologist, Kingsley Fisher, said yesterday that this was due to the department's pilot biological control programme. In 1978, before the campaign began, 100 kilos of infested fruit would yield 3000 fruit-fly pupae. Now the same amount of fruit yielded only 60 pupae. Before the campaign, 178 field trips to the area yielded an average of 400 fruit-flies a week over a year. Today the average was only 50 a week. Under the control programme, fruit-flies were mass-reared at the department's headquarters in South Perth and then sterilised. Each week about 10 million were taken to Carnarvon for release. As they mated with the fertile population in the area, the numbers of fertile flies gradually declined, Mr Fisher said. The control method had been used successfully in Mexico and California to eliminate fruit-fly. Fruit-fly imposed an enormous cost on horticultural industries in WA, attacking fruit and vegetables. The control programme, which had been running for 18 months, was the only one of its kind in Australia, he said. [Perth THE WEST AUSTRALIAN in English 6 Apr 83 p 36]

CSO: 5400/7577

BRAZIL

BRIEFS

DISEASE AFFECTS BEAN CROP--"Angular mancha," a disease which attacks the leaves, blossoms and fruits of plants, is attacking the bean crop in the Sorocaba area and may cause a decline of as much as 30 percent in the total production, estimated at more than 1.3 million bags. The preceding situation was confirmed this week by the Agricultural Office of Itarare; but the disease is now spreading throughout almost the entire productive area in the southern part of Region IV, especially in the municipalities of Capao Bonito, Itapeva, Itarare, Itai, Coronel Macedo and Itaporanga. [Text] [Sao Paulo O ESTADO DE SAO PAULO in Portuguese 14 May 83 p 24] 8568

CSO: 5400/2080

MALAWI

BRIEFS

ARMYWORMS AFFECT FODDER--An armyworm outbreak has been reported at Chisombezi Estate in Chiradzulu District affecting grass for hay and fodder, it was learned at a District Development Committee (DDC) meeting recently. An Agriculture Ministry official told the meeting, however, that a team of agriculture field staff were spraying the estate to control the worms.--
MANA [as published] [Text] [Blantyre DAILY TIMES in English 28 Apr 83 p 1]

CSO: 5400/255

CROPS DESTROYED BY BIRDS, INSECTS, WORMS, DROUGHT

Kaduna NEW NIGERIAN in English 22 Apr 83 p 1

[Article by Ibrahim Biu]

[Text]

QUELEA birds, insects, army worms and drought destroyed crops worth 197 million Naira in Borno State during the last farming season.

Out of this figure, 520,005 tonnes of crops worth 101 million Naira were destroyed by quelea birds, insects and army worms while the remaining 375,100 tonnes worth 95 million Naira were destroyed by drought.

The Commissioner for Agriculture, Mr. Jabani P. Mambulla, told the New Nigerian in Maiduguri that another quantity of food crops worth one million Naira was destroyed by grasshoppers in the southern part of the state. Large hectares of farmlands were also destroyed in the eastern and western parts of the state by quelea birds, army worms and insects.

Mr. Mambulla said the crops mostly destroyed in these areas

were guinea corn, millet and maize.

He said that although the effect of the drought was not as severe as compared to that of 1981, large hectares of farmlands were destroyed at Potiskum and Konduga as well as in certain areas of the western and southern parts of the state.

The figures, he said were compiled by a special committee set up by the ministry last year to investigate the extent of damage done to crops.

He announced that within the last three months, the ministry was alerted about a fresh outbreak of quelea birds and army worms in more than 17 local government areas mostly in Konduga, Bama, Ngala, Gamboru and Marte.

He said that one of the aircraft being used for spraying was involved in an accident near Potiskum last year, killing two people while the other had broken down beyond repairs.

The commissioner appealed to the Federal Government to replace the two damaged aircraft to enable the ministry to undertake the spraying of insecticides for effective control of the situation.

CSO: 5400/264

REUNION

CAMPAIGN AGAINST WHITE WORM DESCRIBED

Saint Denis TEMOIGNAGES in French 21 Mar 83 p 5

[Article by Jose Macarty: "An Attack on All Fronts Has Begun"]

[Text] The white worm, having appeared in the St. Therese region in 1980, has already devastated several hundred hectares of sugar cane. In subsequent months, its zone of penetration has extended, until today it affects Trois Bassins and Guillaume. In order to stop this steady advance, scientists of the IRAT have undertaken a campaign against this parasite which goes by the scientific name Hoplochelus marginalis. Scientists are trying to perfect methods for destroying this insect by starting from precise knowledge of its biological cycle. Since it is relatively vulnerable in the larva stage, it may be attacked by means of intervention in its feeding cycle. Several experiments are now being performed. We shall have to wait several months before deciding upon whether these methods were effective.

The eggs, which are buried in the soil at depths between 5-15 cm, hatch in December. This first stage in the evolution of the larvae lasts until January. Fifteen days after birth, they pass to another stage in their growth cycle, which includes a rapid growth in the volume of the head. It is in February that they become dangerous for the roots of the sugar cane.

For 6 months, the sugar cane plant will be their sole source of food. In September, the larvae become nymphs which constitutes the last stage preceding that of adult. Toward the month of October, the insects climb to the surface of the soil where they practice flying. This preflight period lasts for 3 weeks.

Every day, the adult emerges from the earth, and for about 20 minutes it wanders here and there in order to strengthen its muscles. As soon as the bugs have succeeded in leaving their soil habitat, they mate in sessions which may last 30 minutes. After fertilization, the females go back to the depths of the earth, and the males forage for food as soon as night falls. They pass on to the Malagazy plum trees, mango trees, and brown pepper trees. On the other hand, they disdain the leaves of sugar cane which are used only to support their lovemaking activities. Males don't worry about the females who try to lay 40 eggs in the 12 days during which they bury themselves. Having assured the perpetuation of the species, they come back up for air and find food.

Several days later, they mate again, and the scenario repeats itself. But this time after laying their eggs, they will die next to them at a depth of 15 cm at the roots of the sugar cane plant. In a favorable medium, and at average humidity, the eggs will hatch in about 2 weeks. It is noteworthy that young larvae exhibit great sensitivity to drought, as well as too much humidity which is harmful to their growth and development. During the day, the young adults hide in cane-straw or under tufts of earth. Around 6 pm, they leave their hiding place and fly away in groups. They then alight upon trees so as to devour the young leaves.

Mushrooms versus larvae

The above description of the biological cycle demonstrates that the *Hoplochelus marginalis* might be attacked either at the larva or at the adult stage of growth. However, chemical substances have no effect upon the larvae over 2 months old. Rooted in the soil and physiologically strong, they resist all external agents of control. IRAT specialists have therefore chosen as the strategic moment right after hatching to set them, and after many trials in their laboratory in Versailles, they have selected a mushroom metarhizium as the mortal enemy of the white worm. In December, 29 kg of this mushroom were sent to Reunion for field testing.

They chose a field at St. Therese which was heavily infested with insects for the first experiment. They proceeded to divide the field into four parcels for the required operation. The first parcel was to be the control, and received no treatment. In the second parcel, they sprinkled patches of sugar cane plants carefully and in depth with a mixture of water and fungus. For the preparation of the third parcel, they added insecticide to the water and fungus solution. The last parcel received a spread of manure.

Some anxieties

Through these experiments, the scientists are seeking to find out on one hand whether the mushroom can be credited with being effective, and on the other hand, whether it can be maintained for a long time in the soil. In view of the cost of implanting the mushroom by hand, were such an operation to be repeated every year, such a process would be very expensive.

The first results won't be known for 6 months. But we have to wait 2 years at least to be able to give an overall evaluation of metarhizium. However, at this stage of our experience, the IRAT engineers are already manifesting certain anxieties. This mushroom demands a certain humidity for developing, and the drought which is now raging in the area threatens to ruin the results of the experiments.

Turning the soil for replanting kills the larvae. But surveys recently conducted show that the larvae reappear, although in limited numbers, in fields which have been treated in this way.

In the region of St. Paul, scientists have chosen another form of campaign to attack the adult insects directly. Since they live mostly in the vicinity of

the soil, chemical substances have been widely dispersed on the surface. In less than a month, one can come to the conclusion that the procedure is effective. Moreover, they have thought of putting sulfate on the trees upon which they found the insects. But this method can only play a secondary role in a more radical solution.

A more radical solution would be to use a wasp, the scoli, which abounds in Madagascar. It has long legs for digging, which help it make tunnels in the soil. The female lays her eggs inside the white worms which are then chewed up by young wasp larvae after hatching. This natural enemy of Hoplochelus marginalis won't be introduced into Reunion much before next year. Before undertaking such a campaign, it is mandatory to take all necessary precautions to avoid certain undesirable results which might turn out to be catastrophic.

The slow pace of administration

During a conference to evaluate these measures, the planters of the region complained of delays in receiving the funds they were promised. They need 3,000 francs per hectare to cover their losses in revenue, and 2,000 francs per hectare in order to plant the area again. To this day, the agriculturalists have seen no money. Thus, producers who are the active agents in this country, are discouraged by the slow pace of administration. Wouldn't it be possible to speed up the flow of financial aid?

An attack on all fronts in the war against the white worm has been undertaken. Will it be crowned with success? Answers may not be forthcoming for a year. Meanwhile, the white worm continues to spread throughout the island.

12,248
CSO: 5400/245

GOVERNMENT IMPOSES MANDATORY ANTI-SCANIA SPRAYING OF PRODUCE

Dar es Salaam DAILY NEWS in English 10 May 83 p 1

[Article by Musa Lupatu]

[Text] IN A BID to contain infestation of the notorious Larger Grain Borer, locally known as *Scania* or *Dumuzi*, the Government has imposed mandatory spraying of all produce imported into the country or on transit from one area of the country to the other.

According to a statement issued by the Ministry of Agriculture through *Maelezo* in Dar es Salaam yesterday, spraying would be imposed to all produce coming from places believed to have infestation by the beetle.

An order issued by the Minister of Agriculture, Ndugu John Machunda, under the Plant Protection Ordinance says; 'It is a must to spray grains imported from Southern America, Central America and North America, and if need be, from other places of the world,' the statement said.

It adds that gunny bags and other containers used in transporting the produce will also have to be sprayed if there are worries, or symptoms, that they have been infested by the grain borer.

The order will also apply to locally produced grains and other crops if inspection will confirm the existence of infestation, or if the produce are suspected to have been infested.

A parastatal, agent or any other person receiving the grains or crops will have to abide by the order and if it is confirmed that

infestation is persisting to the extent that it cannot react to spraying, the crops or grains will have to be burnt or destroyed through other means, and no compensation will be paid.

A receiver of the crops, who will fail to abide by the order, will be considered to have committed an offence, and can be liable to pay a fine of 2,000/- or to serve a jail term of six months or serve both punishments, the order says.

The order, which will be printed in the coming issue of the Government Gazette, is part of Government efforts to destroy the beetle which attacks grains in the field and in storage, and multiplies fast. The beetle was spotted first in Tabora Region during the 1980/81 season, and has its origin in Central America.

Ndugu Machunda is quoted by the statement as attributing the rapid infestation of the pest to lack of proper pesticides. He said further that it was a result of food shortage in the country, which necessitated food distribution to various places. Lack of gunny bags had also prevented peasants from following the advice of early dehusking and proper mixture of chemicals, according to Ndugu Machunda.

Meanwhile, reports that a pesticide — *permethrin* — has been identified as the most effective pesticide against the beetle, have been received by

Ministry of Agriculture officials with mixed reactions.

While officials declined comment on the reports, sources said that the reports were yet to get scientific clearance from the Ministry. Others said the reports could be accurate because the pesticide had been tested elsewhere in the country and proved effective.

A *Shihata* report from Tabora said at the weekend that an official from the London-based Tropical Products Institute (TPI) at the Tumbi Agricultural Research Station in Tabora, Peter Gallob, had experimented with the chemical and found it more effective in curbing infestation than the recommended *Actellic* two per cent.

It was reported in the *Sunday News* that the TPI official had experimented with the *Permethrin* pesticide for a period of eight months and noticed that it could contain damage by the pest to four per cent, but that with the earlier recommended chemical, 81.6 per cent of grains mixed with it were found damaged.

A source in the Ministry said, however, that the new chemical was earlier experimented at the Ilonga Agricultural Research Centre and was found to react favourably against the beetle.

TANZANIA

BRIEFS

MAIZE STREAK OUTBREAK--Ngara--Maize streak has broken out in Ngara District and both peasants and agricultural officers have said the intensity caused concern, SHIHATA has reported. The agency said the disease was destroying maize seedlings adding that "many" farms had been attacked. The District Agricultural Officer, Ndugu Joseph Maluli, told SHIHATA the harvests were likely to drop drastically as a result of the attack. Signs of existence of the streak were noticed last year, the official was quoted as saying, adding that the "entire district is under attack". Ndugu Maluli said the division did not have the pesticide to fight the pest. Alternatively peasants could grow high breed varieties which were said to be safe from attack. Timing could also minimise the problem, the official said, indicating that the best time for planting maize in the district would be between November and December. Maize streak was said to thrive during rainy seasons. This season Ngara district cultivated 11,208 ha of maize, but the district agriculture office was yet to ascertain how many had been attacked. [Text] [Dar es Salaam DAILY NEWS in English 10 May 83 p 3]

CSO: 5400/271

END